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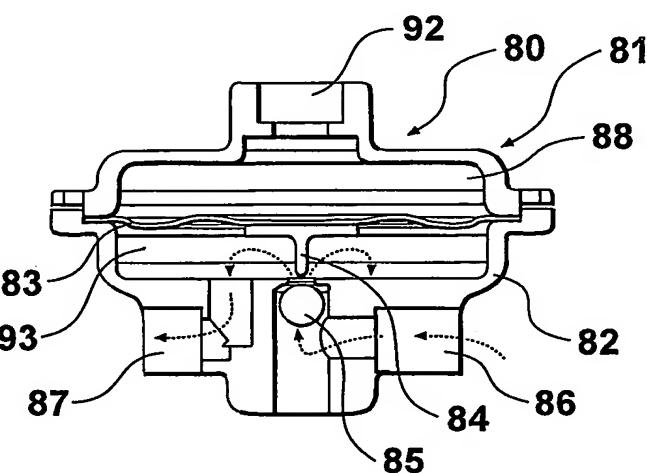
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(54) Title: FLUID HEATER



the ball valve (85) to open and allow maximum flow of the heated water through the valve (80) to the nozzle of the tool.

(57) Abstract: A portable fluid heating tool capable of heating a flow of water under mains pressure to about 107 degrees Celsius and has a connection to a water supply via a hose. Water flows through an electrical heater within the tool, then to a thermally controlled pressure regulating valve (80) and then to the outlet nozzle. This valve (80) has a moveable member such as a diaphragm (83) sealing off a pressure chamber (88). Movement of the diaphragm (83) causes a valve (85) to open or at least partly close. When closed the valve (85) impedes, or restricts the flow of water from an inlet (86) to an outlet (87) through the valve. On the other side of the diaphragm (83) a small quantity of water is trapped within the pressure chamber (88), so that as the valve (80) heats up, pressure within the pressure chamber (88) rises as the water turns to water vapour and the air within the chamber also expands. This increase in pressure within the pressure chamber (88) causes the diaphragm (83) to move slightly outwardly causing a pintle (84) to allow

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